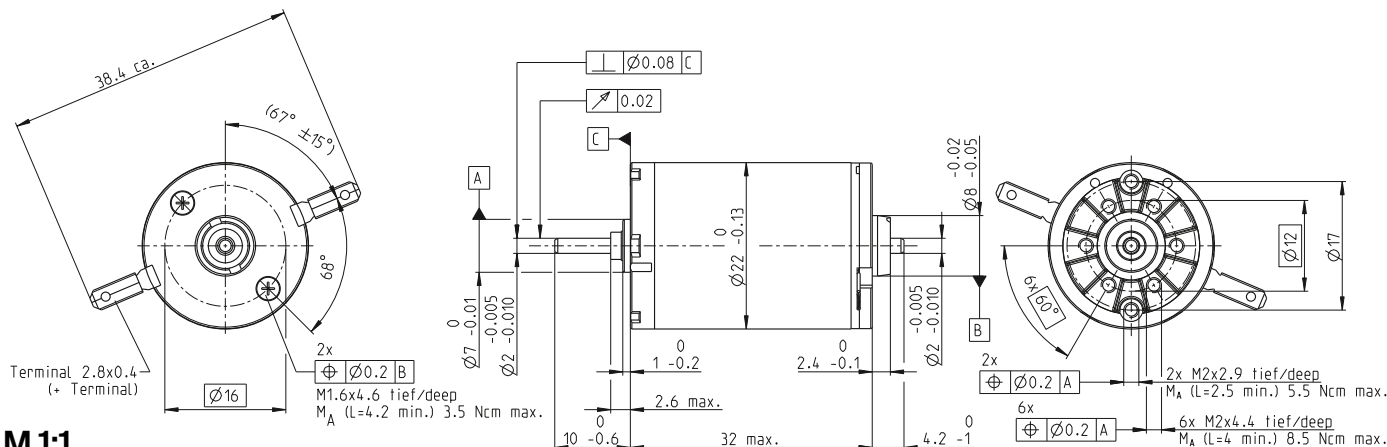


DC-max 22 S Ø22 mm, precious metal brushes, DC motor

Key data: 5/9.6 W, 10.4 mNm, 9000 rpm



DC-max



M 1:1

Motor data

1. Nominal voltage	V	6	12	24
2. No load speed	rpm	5480	5890	5090
3. No load current	mA	20.8	11.7	4.62
4. Nominal speed	rpm	4280	4240	3440
5. Nominal torque	mNm	8.54	10.3	10.4
6. Nominal current (max. continuous current)	A	0.840	0.543	0.236
7. Stall torque	mNm	39.0	36.9	33.3
8. Stall current	A	3.75	1.91	0.721
9. Max. efficiency	%	85.7	85.2	84.9
10. Terminal resistance	Ω	1.60	6.28	33.3
11. Terminal inductance	mH	0.119	0.413	2.21
12. Torque constant	mNm/A	10.4	19.3	44.8
13. Speed constant	rpm/V	919	494	213
14. Speed/torque gradient	rpm/mNm	141	160	159
15. Mechanical time constant	ms	8.44	8.36	8.39
16. Rotor inertia	gcm ²	5.70	4.98	5.05

Thermal data

17. Thermal resistance housing-ambient	K/W	20
18. Thermal resistance winding-housing	K/W	6
19. Thermal time constant winding	s	16.8
20. Thermal time constant motor	s	538
21. Ambient temperature	°C	-30...+65
22. Max. winding temperature	°C	85

Mechanical data ball bearings

23. Max. speed	rpm	9000
24. Axial play	mm	0.05...0.15
Preload	N	0
25. Radial play	mm	0.025
26. Max. axial load (dynamic)	N	3.3
27. Max. force for press fits (static) (shaft supported)	N	45
28. Max. radial load [mm from flange]	N	12.3 [5]

Mechanical data sleeve bearings

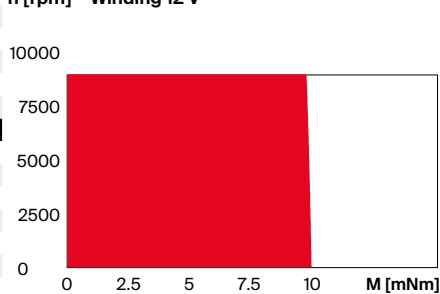
23. Max. speed	rpm	9000
24. Axial play	mm	0.05...0.15
Preload	N	0
25. Radial play	mm	0.012
26. Max. axial load (dynamic)	N	1
27. Max. force for press fits (static) (shaft supported)	N	80
28. Max. radial load [mm from flange]	N	2.8 [5]

Other specifications

29. Number of pole pairs		1
30. Number of commutator segments		9
31. Weight of motor	g	53.8

Operating range

n [rpm] Winding 12 V



- Continuous operation
- Continuous operation with reduced thermal resistance R_{th2} 50%
- Intermittent operation

Mechanical data sleeve bearings

23. Max. speed	rpm	9000
24. Axial play	mm	0.05...0.15
Preload	N	0
25. Radial play	mm	0.012
26. Max. axial load (dynamic)	N	1
27. Max. force for press fits (static) (shaft supported)	N	80
28. Max. radial load [mm from flange]	N	2.8 [5]

Other specifications

29. Number of pole pairs		1
30. Number of commutator segments		9
31. Weight of motor	g	53.8

Modular system

Gear	Stages [opt.]	Sensor
390_GPX 22 A/C	1-2 [3-4]	498_ENX 13 GAMA
391_GPX 22 LN/LZ	1-2 [3-4]	504_ENX 22 IMR
396_GPX 26 A/C	3	507_ENX 10 QUAD
397_GPX 26 LN/LZ	3	507_ENX 10 EASY

Details on catalog page 40

Motor Control
550_ESCON Module 24/2
550_ESCON 36/2 DC
557_ESCON2 Nano 24/2
563_EPOS4 Micro 24/5
564_EPOS4 Module 24/1.5
565_EPOS4 Compact 24/5 3-axes
566_EPOS4 Compact 24/1.5

Configuration

Bearing: Sleeve bearings/ball bearings
Commutation: Precious metal brushes with CLL/Graphite Brushes
Shaft front/back: Length
Electric connection: Terminals/cable